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# National Health Care Expenditures Study

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## Family Structure and Children's Use of Ambulatory Physician Services

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## Family Structure and Children's Use of Ambulatory Physician Services

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The purpose of this article is to examine children's use of ambulatory physician services in relation to three dimensions of family life: maternal employment, single-parent versus two-parent households, and the presence of a nuclear or extended family. Data from the National Medical Care Expenditure Survey show that maternal employment has no relationship to children's experience of disability days, and although children of mothers employed full-time are less likely to have a physician contact than are other children, this is attributable to a lower probability of seeing a doctor for children in good health (i.e., no disability days). Multivariate analysis confirms that although maternal employment decreases the likelihood of an ambulatory physician visit (among children with no disability days), it does not affect the total number of ambulatory physician visits or the likelihood of a telephone consultation with the child's physician. Children in single-parent families are more likely to see a physician when they have no disability days, than are children in families with two parents present. Children in nuclear rather than extended families do not differ in patterns of use, even when the mother works. Aside from other characteristics that might be expected to affect use (e.g., age, health status, insurance coverage, a usual source of care), there is a clear relationship between likelihood and volume of use by mothers and children. Key words: children's use of ambulatory physician services; family life; maternal employment; single-parent family; two-parent household; nuclear family; extended family; multivariate analysis. (Med Care 1985, 23:350-360)

Recent trends in the structure of the American family include increases in participation of women in the labor force, the growth of single-parent households, and a

decline in the number of households with extended families. Although these developments have potential impact on the provision of health care to children, their precise effects have not been completely explored.

That the family is the basic unit in the provision of health services is a basic precept in health services research.<sup>1</sup> Processes in the family define who is sick and who is not, the kinds of medical attention that may be necessary, the role of the sick person in the household, and the sources and amounts of payment for medical care. The recognition of the family's role has a rich, sociologic legacy, beginning with Parsons and Fox's<sup>2</sup> classic theoretical article on the sick role and related studies such as Sussman's<sup>3</sup> study of the nuclear family. Continuing attention

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to the family is seen in Pratt's<sup>4</sup> study of the role of the family in medication and Litman's<sup>5</sup> analysis of health care in three-generational families.

The magnitude of recent changes in the American family is notable; dual-career families with children younger than 6 years of age rose from 11.9% in 1950 to 29.1% in 1977.<sup>6</sup> In the same period, the number of children in families with only a female parent increased by 39.9%,<sup>7</sup> and in most of these, the mother works.<sup>8,9</sup> Along with these changes, the prevalence of the extended family has declined. The proportion of U.S. households with subfamilies declined from 6.2% to 2.1% from 1950 to 1977; the percentage of married couples without their own household was only 1.1% in 1977 compared with 5.6% in 1950.<sup>7</sup>

Since mothers have been shown to play a significant role in the health of children—as caretakers,<sup>10</sup> as gatekeepers to the health care system,<sup>11-14</sup> and as health educators and role models<sup>4</sup>—it is important to ask whether and how recent changes in family life might affect these roles. Although some recent attention has been paid to the role of the working mother in obtaining pediatric care,<sup>15-17</sup> there have been no studies that have examined the role of the working mother in children's health care relative to other dimensions of family life.

### Maternal Employment

One study has shown that mothers who work full-time are more likely to be depressed than are housewives<sup>18</sup>; the authors of the study interpret this as a consequence of the "the time and work demands resulting from the dual role of being a working mother."<sup>†</sup> The literature clearly shows that the burdens of household chores continue

to fall on women who work.<sup>21-23</sup> Among these chores is taking children to the doctor, although a review of the literature shows that the effects of mothers's employment on children's use of ambulatory physician services are not entirely clear.

Economists use the concept of time-cost to interpret phenomena such as lower rates of medical care utilization among employed persons relative to the unemployed. This is the sum of time spent on a task (e.g., leaving work, taking a child to the doctor, waiting, taking the child home, and returning to work), multiplied by the value of this time, which could have been spent earning a wage or cleaning the house. The time-cost of a child's visit to the doctor increases with the responsibilities of the mother, be they gainful employment or family size. It has been shown, for example, that children's use of health services decreases with family size.<sup>24</sup> Colle and Grossman<sup>15</sup> found no significant relationship between the time-cost of a physician visit among working mothers and the total number of physician visits in private practice in 1 year among a sample of children 1-5 years of age. There was, however, a negative relationship between the time-cost of mothers who work and the probability that a child obtained a preventive examination during the year, possibly because these services are more discretionary. Finally, on the basis of the economics of time allocation, it might be expected that working mothers substitute telephone contacts for physician visits; however there have been no studies that test this hypothesis.

In a study of children in the Rochester, New York area, Wolfe<sup>16</sup> found that children of full-time working mothers and of stay-at-home mothers average fewer total visits than children whose mothers work part-time. She speculates that there may be a substitution of home services for physician services among full-time homemakers, while full-time employed mothers may be more sensitive to time cost.

<sup>†</sup> Although several studies of working women, leaving aside whether they are mothers, suggest they have better mental health than women who do not work.<sup>19,20</sup>



Although mothers who work may have less time to take their children to the doctor and to care for them at home when they are sick, it might, for other reasons, be expected that children of working mothers see physicians more often. German<sup>25</sup> found that children in day-care centers are more likely to have immunizations. A day-care center or babysitter may refuse to accept a sick child without a physician's note. Also working mothers may be more attentive to early diagnosis of problems. Mindful of the cost of a sick day, they may consult physicians more readily to "head off" what might later hinder their attendance at work.

#### Single-parent Families

Women with dependent children and no father/husband present could be expected to perform their roles as gatekeepers and caretakers no differently from women in two-parent families if mothers, rather than fathers, traditionally perform these roles. On the other hand, structural strains associated with being the female head of a household may cause stress not found in two-parent families.<sup>26</sup> Mechanic<sup>11</sup> and Haggarty et al.<sup>27</sup> have shown that mother's stress increases use of pediatric services, mostly for sick care, and particularly telephone calls.

#### Nuclear Families

The advantages of an extended household for children's health care have been recently demonstrated. German et al.<sup>25</sup> found that in a black, disadvantaged inner-city area, the presence of an intergenerational family increased the likelihood of a preventive pediatric visit. However, Sussman's<sup>3</sup> study found little support for the notion that the nuclear family may experience difficulty when a family member is sick because fewer caretakers are available than in the extended family; in particular, people in nuclear fam-

ilies could count on relatives living nearby for assistance when illness occurred.

Extensive geographic mobility in recent decades makes it less likely that nuclear families live near kin, however. The absence of nearby relatives may increase physician visits or telephone contacts insofar as a mother might want to consult with an experienced adult in evaluating her child's medical condition. There are no studies relating to this hypothesis, however.

#### Materials and Methods

Data for this article were supplied by the National Medical Care Expenditure Survey (NMCES) of the National Center for Health Services Research. The NMCES was a national survey of health care use and expenditures for calendar year 1977. In the survey, 14,000 randomly selected households in the civilian, noninstitutionalized population were interviewed six times during an 18-month period (1977-78). The sample of interest in this article is the subset of children 1 to 11 years old. The 5,538 children in this sample resided in 3,354 separate households.

The sampling unit in this survey was the household. In some regards, the use of all children in the survey compromises the assumption of independent observations for multivariate analyses. Any adjustments, however, to regressions, such as weighting the children by their proportion in the household, would not erase this problem. In addition, the selection of one child per household is not a viable alternative insofar as the sampled child may not be "representative" of all children in the household. We therefore decided to use number of children in the family as a predictor and to assess wherever possible the extent to which the results might be biased by the decision to use all children.

The dependent variables in the multivariate analyses are whether or not a child ever saw a physician in an ambulatory care setting

in the survey year, the total number of visits among children with at least one, and the likelihood of a telephone contact to the child's physician for medical advice. The likelihood of a visit or a telephone call is examined separately from volume of use (total number of visits or telephone calls) because family decisions are most likely to affect the decision to enter the health care system; volume of use is affected by physician decisions as well as family decisions.

Also of interest are the children's experience of a disability day, defined as a day of illness or injury that kept a person in bed or away from usual activity (e.g., school), and of bed-disability days, defined as a day illness or injury kept a person in bed all or most of the day, including days in the hospital.

Maternal employment was defined on an annual basis. A mother who was employed 35 hours or more in a usual week all year was defined as a full-time worker. One who was employed part of the year or on a part-time basis (less than 35 hours a week) was defined as a part-time worker. Mothers who reported that they did not work in the survey year are so indicated.

Besides maternal employment, two other dimensions of family life were identified: 1) whether the family was two-parent (consisting of a head and a spouse) or single-parent (head only); and 2) whether the family was nuclear or extended (relatives other than a spouse or children living with the family). In addition, interaction terms were constructed between the maternal employment variables and these other dimensions of family life. These variables are included in the multivariate analysis to determine if children of working mothers see physicians more when people other than the mother (husbands in two-parent families or members of an extended family) are available to accompany them in the mother's absence.<sup>25</sup>

Mechanic<sup>11</sup> has shown that "mothers with high inclination to use medical facilities for

themselves when compared with mothers of lower inclination are more likely to take their children to the doctor . . . and they also take their children to the doctor more frequently." To control for this, the concept of a patient-initiated visit was used.<sup>28</sup> For each visit to a physician, respondents in the survey were asked whether an appointment had been scheduled or if the visit was made without an appointment. If the visit was by appointment, respondents were asked whether the physician had requested during a previous visit that the patient make another appointment or whether the patient had initiated the appointment. Visits arranged by the patient, whether by calling for an appointment or walking in, are considered patient-initiated. In contrast, visits requested by the physician are defined as physician-initiated. For the purposes of this analysis, the total number of the mother's patient-initiated visits for herself in the survey year is included as a predictor in the multivariate analysis.

Since the statistics presented in this report are based on a sample, they may differ somewhat from those that would have been obtained if a complete census had been taken. The potential difference between sample results and a complete count constitutes the sampling error, which is measured by a statistic called the standard error of the estimate. All percentage differences noted in this article are significant at the  $P < 0.05$  level and take these errors into account. Further, due to the violation of the continuity assumptions encountered when using traditional regression analysis with dichotomous data, a logistic regression was used when the variable of interest was the likelihood of an ambulatory physician visit or of a telephone call to the child's physician for medical advice; this procedure satisfies the assumption through variable transformation. The regressions estimating the total number of physician visits used SURREGR, a regression package to generate standard

TABLE 1. Disability and Bed-disability Days Among Children 1-11 Years Old

	Population (1000s)	Percentage With at Least 1 Disability Day	Percentage With at Least 1 Bed Disability Day	Mean No. of Disability Days Among Children With One or More	Mean No. of Bed Disability Days Among Children With one or more
All children	30,742	72.6	60.2	11.0	7.5
Work status of mother					
Full-time worker	8,385	71.4	58.4	9.6	6.9
Part-time worker	9,816	74.5	62.7	11.8	7.7
Did not work	12,525	71.9	59.4	11.3	7.8
Ages 1-5	12,833	74.0	58.3	12.2	8.3
Full-time worker	3,009	73.1	57.4	9.8	7.0
Part-time worker	4,001	75.9	61.6	13.7	8.8
Did not work	5,807	73.2	56.5	12.2	8.7
Ages 6-11	17,909	71.6	61.5	10.1	6.9
Full-time worker	5,376	70.5	59.0	9.4	6.8
Part-time worker	5,815	73.4	63.4	10.4	13.0
Did not work	6,718	70.8	61.9	10.4	7.0

Source: National Center for Health Services Research (NMCES Household Survey: United States, 1977).

errors of regression coefficients for complex survey data by a Taylor series approximation.<sup>29</sup> §

### Results

Approximately three fourths of the children ages 1-11 in the United States had at least one disability day in 1977, with an average of 11.0 disability days among those with at least one. Children of working mothers were no more likely to have disability days in 1977 than were children of mothers who were full-time homemakers, and the mean number of disability days did not vary as well (Table 1). Approximately 60% of all children had at least one bed-disability day, with an average of 7.5 per child with at least one. This pattern also did not differ by mother's employment status.

§ Because the NMCES household sampling design was a stratified multistage area probability design, variance estimation could not proceed on the assumption of equal sampling probabilities as would be the case with simple random sampling.<sup>30</sup>

Table 2 shows that the only significant difference in the use of ambulatory physician services associated with maternal employment is among children with zero disability days. Overall, three fourths of children had at least one ambulatory physician visit in 1977, and approximately one quarter had at least one telephone contact with a physician for medical advice. Among children with full-time working mothers and no disability days, however, approximately half (48.6%) had a physician visit and 5.4% a telephone contact in their behalf. Approximately 10% more children with zero disability days made visits to a physician when their mothers did not work compared with those whose mothers were employed full-time (children of part-time working mothers, 7% more). Likewise, the proportion of children whose mothers called the child's physician was somewhat higher when mothers were full-time homemakers (8.7% in comparison with 5.4% for children of full-time working mothers), but this difference is not significant. For children with one or more disability days, use of telephone consulta-



TABLE 2. Use of Ambulatory Physician Services by Children Ages 1-11

	Population (1000s)	Percentage With 1 or More Physician Visits	Percentage With 1 or More Telephone Contacts	Mean No. of Physician Visits Among Children With 1 or More
All children	30,742	77.1	23.1	4.1
Mother's work status				
Full-time worker	8,385	74.7	21.9	3.8
Part-time worker	9,816	78.1	24.4	4.4
Did not work	12,525	78.0	23.0	4.1
No. of children's disability days and mother's work status				
Zero days				
Full-time worker	2,398	48.6	5.4	2.4
Part-time worker	2,506	56.5	4.1	3.0
Did not work	3,519	59.4	8.7	2.8
1-5 days				
Full-time worker	9,352	76.9	20.2	3.4
Part-time worker	2,975	77.0	20.7	3.5
Did not work	3,646	75.8	20.5	3.7
6 or more days				
Full-time worker	3,259	91.0	36.4	4.9
Part-time worker	4,336	91.3	38.7	5.3
Did not work	5,361	91.7	34.1	4.9

Source: National Center for Health Services Research (NMCES Household Survey: United States, 1977).

tions and visits to the doctor did not vary with maternal employment. There were no differences in mean number of visits associated with maternal employment, even among children with zero disability days.<sup>11</sup>

While multivariate analysis shows that for all children 1-11 years of age, full-time employment of mothers is negatively related to the likelihood of a physician visit (Table 3), this reflects the lower likelihood of children of mothers who work full-time seeing a doctor when the child has no disability

days. There is no difference by employment status in the way mothers respond to illness (one or more disability days). For children with no disability days, both full- and part-time work by mothers is negatively associated with seeing a physician, as is living in a two-parent household. The interaction terms do not suggest a different interpretation of these relationships with one exception. For children who have no disability days and live in two-parent families with a mother who works part-time, the likelihood of seeing a physician is somewhat greater than when the effects of the mother's part-time work status and presence of two parents are considered separately. The other family structure indicator, extended versus nuclear family, shows no differences in likelihood of children seeing a physician.

The relationship between mother's work

<sup>11</sup> For children of full-time working mothers, mother's hourly wage-rate and the presence or absence of paid sick leave were not significantly associated with either a) the likelihood of a physician visit and b) the total number of visits among children with at least one visit. For this reason separate regressions were not run for children of working mothers to examine the effect of these employment related variables.

TABLE 3. The Likelihood of an Ambulatory Physician Visit

	All Children Estimated Coefficient ( <i>t</i> Ratio)	Children With Zero Disability Days	Children With 1 or More Disability Days
Intercept	2.456	2.505	2.757
Background Characteristics			
Sex (female = 1)	-0.176 <sup>h</sup> (2.45)	-0.006	-0.310 <sup>h</sup>
Color (white = 1)	0.262 <sup>h</sup> (2.73)	0.250	0.237
Age	-0.148 <sup>h</sup> (10.92)	-0.186 <sup>h</sup>	-0.125 <sup>h</sup>
No. of children in family	-0.163 <sup>h</sup> (6.26)	-0.146 <sup>h</sup>	-0.173 <sup>h</sup>
Health status <sup>a</sup>			
Good	0.037 (0.47)	-0.228	0.188
Fair or poor	0.618 <sup>h</sup> (3.53)	0.185	0.881 <sup>h</sup>
Activity limitation (yes = 1)	0.960 <sup>h</sup> (2.58)	1.539	0.650
No. of disability days	0.120 <sup>h</sup> (15.19)	NA	0.079 <sup>h</sup>
Income <sup>b</sup>			
Poor or near poor	-0.574 <sup>h</sup> (3.77)	-0.554 <sup>h</sup>	-0.630 <sup>h</sup>
Other low	-0.533 <sup>h</sup> (4.00)	-0.464 <sup>h</sup>	-0.644 <sup>h</sup>
Middle	-0.220 (1.84)	-0.069	-0.375 <sup>h</sup>
Insurance status <sup>c</sup>			
Medicaid	0.184 (1.33)	0.152	0.260
Other insurance	0.353 (1.46)	-0.009	0.714
Never insured	-0.267 <sup>h</sup> (2.00)	-0.155	-0.352 <sup>h</sup>
Physician-population ratio	0.001 <sup>h</sup> (2.11)	0.001	0.001
Usual source of care <sup>d</sup>			
Hospital outpatient	0.000 (0.00)	0.001	-0.069
No usual source	-1.474 <sup>h</sup> (13.72)	-1.488 <sup>h</sup>	-1.371 <sup>h</sup>
Other source	-0.196 (1.50)	-0.066	-0.217
Mother's age	-0.001 (1.72)	-0.004	-0.014
Mother's education <sup>e</sup>			
12 years	0.084 (0.95)	0.065	0.043
13 or more years	0.369 <sup>h</sup> (3.27)	0.333	0.298 <sup>h</sup>
No. of mother's patient-initiated visits <sup>f</sup>			
1	0.239 <sup>h</sup> (2.38)	0.284	0.259
2-3	0.441 <sup>h</sup> (4.53)	0.476 <sup>h</sup>	0.423 <sup>h</sup>
4 or more	0.673 <sup>h</sup> (6.04)	0.679 <sup>h</sup>	0.681 <sup>h</sup>
Family Structure Indicators			
Mother's work status <sup>g</sup>			
Full-time worker	-0.465 <sup>h</sup> (2.24)	-0.767 <sup>h</sup>	-0.257
Part-time worker	-0.337 (1.46)	-0.794 <sup>h</sup>	0.114
Extended family (yes = 1)	0.167 (0.70)	0.125	0.116
Two-parent family (yes = 1)	-0.290 (1.63)	-0.599 <sup>h</sup>	-0.046
Full-time worker/extended family	-0.087 (0.25)	0.237	-0.218
Part-time worker/extended family	-0.406 (0.99)	0.157	-0.816
Full-time worker/two-parent family	0.277 (1.24)	0.287	0.302
Part-time worker/two-parent family	0.337 (1.36)	0.806 <sup>h</sup>	-0.144
Regression equivalent <i>R</i> <sup>2</sup>	0.19	0.19	0.12

<sup>a</sup> "Excellent" omitted.<sup>b</sup> "High" omitted.<sup>c</sup> "Private insurance" omitted.<sup>d</sup> "Doctor's office usual source" omitted.<sup>e</sup> "Less than 12 years" omitted.<sup>f</sup> "Did not work" omitted.<sup>g</sup> "Zero" omitted.<sup>h</sup> *P* < 0.05.

Source: National Center for Health Services Research (NMCES Household Survey: United States, 1977).

status and likelihood of children with no disability days seeing a physician suggests that discretionary visits are more subject to time-cost pressures than are illness-related visits. The finding of greater likelihood of physician use by children with no disability days who have a single parent, on the other hand, indicates support for the research that shows greater use of children's physician services by mothers in stressful circumstances. The greater number of visits by children in two-parent families (Table 4) also suggests that more children in single parent families see a physician for fewer visits on average, as might be expected for children without disability days. Table 3 provided no support for the notion that extended families facilitate children's use of health services or that nuclear families are at a disadvantage in this regard. Neither did the interaction terms suggest that extended or nuclear families relative to mother's work status was important in children's physician use.

Apart from family structure, several other variables significantly affect the likelihood of a physician ambulatory visit. These include demographic characteristics such as age, sex, and number of children in the family, and measures of children's health status such as perceived health status. Low-income children and those without insurance or without a usual source of care are all less likely to see a physician, as expected. There also is a clear relationship between higher numbers of physician visits by mothers and a greater likelihood of children seeing a physician, both in the absence and presence of disability days. This supports Mechanic's research cited earlier and indicates patterns of use by mothers may carry over to children. Finally, it should be noted that the total explained variance in both Tables 3 and 4 is rather small, despite the identification of several variables that significantly affect children's physician use. There clearly are other important influences on use which remain to be identified.

Table 4 shows total number of physician

visits among children with one or more as a function of the child's and family's characteristics. Among children who saw a doctor, those whose mothers worked part-time had more visits than those whose mothers worked full-time or not at all. Children with two parents in their family also had more visits among children with at least one visit. As in Table 3, living in an extended or nuclear family had no effect. The significant interaction terms show that children in two-parent families with working mothers will not have as many visits as might be expected from the main effects alone.

Many of the same background characteristics tend to be important for volume of visits as for likelihood of physician use. Demographic and health status variables affect number of visits. Children without insurance and with no usual source of care have fewer numbers of visits. In addition, children whose mothers have four or more physician visits also have more physician visits than other children.

None of the family structure variables is significantly related to the likelihood of a telephone call to the child's physician nor to the total number of calls to physicians (regression not shown). This indicates that working mothers do not substitute phone calls for medical advice in place of visits to the doctor. Not surprisingly, a telephone call is less likely for children in poor families on Medicaid or with less educated mothers. Children whose usual source of care is a physician's office are more likely than other children to have had a call made to their doctor for medical advice. As in Table 3, mothers who have seen physicians themselves are more likely to call a physician concerning their child.

### Discussion

Children's use of ambulatory physician services has been examined in relation to maternal employment, whether there are one or two parents in a family and whether the family is nuclear or extended in struc-

TABLE 4. The Total Number of Ambulatory Physician Visits among Children With One or More and the Likelihood of a Telephone Call to the Child's Physician

	Total No. of Physician Visits Among Children With 1 or More		Likelihood of a Telephone Call to Child's Physician	
	(SURREG Coefficient (F Ratio))		Logistic Coefficient (t Ratio)	
Intercept	3.484		-1.523	
Background characteristics				
Sex (female = 1)	-0.469 <sup>h</sup>	(6.30)	0.013 <sup>h</sup>	(4.10)
Color (white = 1)	0.444	(3.38)	0.869 <sup>h</sup>	(6.76)
Age	-0.237 <sup>h</sup>	(80.68)	-0.125 <sup>h</sup>	(9.05)
No. of children in family	-0.395 <sup>h</sup>	(37.55)	-0.209 <sup>h</sup>	(5.82)
Health Status <sup>a</sup>				
Good	0.729 <sup>h</sup>	(21.00)	0.015	(0.19)
Fair or poor	2.371 <sup>h</sup>	(13.37)	0.193	(1.22)
Activity limitation (yes = 1)	1.886 <sup>h</sup>	(5.52)	0.386	(1.59)
No. of disability days	0.081 <sup>h</sup>	(20.64)	0.034 <sup>h</sup>	(11.72)
Income <sup>b</sup>				
Poor or near poor	-0.176	(0.19)	-0.316 <sup>h</sup>	(2.04)
Other low	-0.311	(1.46)	-0.112	(0.89)
Middle	-0.022	(0.01)	0.113	(1.16)
Insurance status <sup>c</sup>				
Medicaid	0.003	(0.04)	-0.447 <sup>h</sup>	(2.87)
Other insurance	1.085 <sup>h</sup>	(4.32)	-0.275	(1.00)
Never insured	-0.757 <sup>h</sup>	(10.98)	-0.161	(1.05)
Physician-population ratio	-0.015	(0.03)	0.009	(2.17)
Usual source of care <sup>d</sup>				
Hospital outpatient	-0.266	(1.24)	-1.077 <sup>h</sup>	(5.12)
No usual source	-1.222 <sup>h</sup>	(21.30)	-1.385 <sup>h</sup>	(7.20)
Other source	-0.642	(7.59)	-0.666 <sup>h</sup>	(3.88)
Mother's age	0.008	(0.40)	-0.005	(0.74)
Mother's education <sup>e</sup>				
12 years	0.265	(3.08)	0.204 <sup>h</sup>	(2.17)
13 or more years	0.896 <sup>h</sup>	(14.65)	0.513 <sup>h</sup>	(4.91)
No. of mother's patient-initiated visits <sup>g</sup>				
1	-0.119	(0.27)	0.254 <sup>h</sup>	(2.36)
2-3	0.185	(1.24)	0.240 <sup>h</sup>	(2.34)
4 or more	0.902 <sup>h</sup>	(13.30)	0.284 <sup>h</sup>	(2.58)
Family Structure Indicators				
Mother's work status <sup>f</sup>				
Full-time worker	0.511	(1.98)	0.451	(1.60)
Part-time worker	1.326 <sup>h</sup>	(4.71)	0.252	(0.84)
Extended family (yes = 1)	0.327	(0.32)	-0.541	(1.70)
Two-parent family (yes = 1)	0.713 <sup>h</sup>	(4.04)	0.332	(1.31)
Full-time worker/extended family	-0.041	(0.00)	-0.242	(0.52)
Part-time worker/extended family	-1.172	(1.95)	-0.010	(0.02)
Full-time worker/two-parent family	-0.985 <sup>h</sup>	(5.94)	-0.666 <sup>h</sup>	(2.28)
Part-time worker/two-parent family	-1.413 <sup>h</sup>	(4.59)	-0.374	(1.20)
Regression equivalent R <sup>2</sup>	0.20		0.14	

<sup>a</sup> "Excellent" omitted.<sup>b</sup> "High" omitted.<sup>c</sup> "Private insurance" omitted.<sup>d</sup> "Doctor's office usual source" omitted.<sup>e</sup> "Less than 12 years" omitted.<sup>f</sup> "Did not work" omitted.<sup>g</sup> "Zero" omitted.<sup>h</sup>  $P < 0.05$ .

Source: National Center for Health Services Research (NMCES Household Survey: United States, 1977).



ture. Although utilization might be expected to decrease with maternal employment (because of time-cost), other factors might offset this decrease, such as the unwillingness of day-care centers to accept children when they are ill. Working mothers also might substitute telephone calls, which don't require time off from work, in place of physician visits. The literature also suggests that the presence of an extended family with more caretakers available might offset any decrease in utilization of physicians services among children of working mothers. Finally, if children's use of health services is monitored primarily by the mother, we would expect no differences in use between children in single-parent and two-parent families. On the other hand, some research suggests the structural strain associated with being a single parent may increase maternal stress and thereby children's physician utilization.

Data from the National Medical Care Expenditure Survey have shown that maternal employment does not correlate with children's experience of disability days or bed-disability days. Children whose mothers are employed full-time had no fewer days away from school or in bed than children of mothers who did not work in the survey year. However, children whose mothers worked were less likely to see a physician if the child experienced no illness days. This suggests children of working mothers may be less likely to receive preventive care. It is also possible however that fewer "unnecessary" visits occur for children of working mothers. This is an issue worthy of further investigation, despite the difficulty of defining "unnecessary" visits.

There were no differences in physician use between children in extended and nuclear families. It should be noted, however, that the definition of an extended family used here did not differentiate between additional adult family members capable of taking a child to the doctor and those who were not.

In addition to a better understanding of patterns of preventive care use among children of working mothers, this article shows that more research is needed on the relationship between patterns of health care use by mothers and their children. In the absence of illness, children of single parents were more likely to see a physician. Other research has suggested more physician use occurs for children of mothers under stress. Although not the subject of this article, these mothers may also use more care. This analysis does show a clear relationship between both a greater likelihood of use and higher rates of use by mothers and more physician use by their children. This confirms earlier findings by Mechanic<sup>11</sup> that maternal help-seeking behavior affects children's physician use.

It was suggested that working mothers might be more likely to phone physicians for medical advice concerning their children. This proved not to be the case. In fact most of the same factors influencing likelihood of a visit also contributed to the probability of a phone call.

### Conclusion

Changes in American family life do not appear to have affected a pattern of health care described almost 20 years ago (i.e., the dominant role of the mother as a gatekeeper to the health care system). Employment of women has not affected the way in which they seek care for ill children. Its impact appears to be on more discretionary care, which may mean preventive services. The decline of extended families, on the other hand, appears to have no impact on the way children use health services, regardless of whether mothers work. The emergence of more single parent households does have implications for use of discretionary care by children. Whether this reflects greater stress on single mothers deserves more research, as does the broader relationship between patterns of health care use by mothers and children. Finally, as so much other research

has indicated, demographic characteristics, health status, insurance coverage, and presence of a usual source of care remain of central importance in children's patterns of physician use.

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### References

1. Crawford CO, Ed. *Health and the family: a medical sociological analysis*. New York: MacMillan, 1971.
2. Parsons T, Fox R. Illness, therapy, and the modern American family. *J Social Issues* 1959;8:31.
3. Sussman MB. The isolated nuclear family: fact or fiction. *Social Prob* 1959;6:333.
4. Pratt L. The significance of family in medication. *J Comp Family Studies* 1973;4:13.
5. Litman TJ. The family as a basic unit in health and medical care: A sociobehavioral overview. *Soc Sci Med* 1974;8:495.
6. Hayghe H. Marital and family characteristics of workers. *Monthly Labor Review* 1978;101:51.
7. U.S. Department of Commerce. Marital status and living arrangements: March 1977. *Current Population Reports, Series P-20, No. 323*, Washington, DC, 1978.
8. Johnson B. Changes in marital and family characteristics of workers. *Monthly Labor Review* 1979;104:49.
9. Waldman E, Grossman AS, Hayghe H, Johnson BL. Working mothers in the 1970s: A look at the statistics. *Monthly Labor Review* 1979;102:39.
10. Davis F. *Passage through crisis: polio victims and their families*. Indianapolis: Bobbs-Merrill, 1963.
11. Mechanic D. The influence of mothers on their children's health attitudes and behavior. *Pediatrics* 1964;33:444.
12. Kirscht JP, Becker M, Eveland JP. Psychological and social factors as predictors of medical behavior. *Med Care* 1976;14:422.
13. Bednarzik RW, Klein DP. Labor force trends: a synthesis and analysis. *Monthly Labor Review* 1977;10:3.
14. Selwyn BJ. An epidemiological approach to the study of users and nonusers of child health services. *Am J Pub Health* 1978;68:231.
15. Colle AD, Grossman M. Determinants of pediatric care utilization. *J Human Resources* 1978;13:115.
16. Wolfe B. Children's utilization of medical care. *Med Care* 1980;16:33.
17. Carpenter E. Children's health care and the changing role of women. *Med Care* 1980;18:1208.
18. Cleary PD, Mechanic D. Sex differences in psychological distress among married people. *J Health Soc Behav* 1983;24:111.
19. Nathanson CA. Sex, illness and medical care. *Soc Sci Med* 1977;11:13.
20. Cumming EC, et al. Suicide as an index of role strain among employed and not employed married women in British Columbia. *Rev Canadian Sociology and Anthropology* 1975;12:462.
21. Kanter RM. *Work and family in the United States*. New York: Russell Sage, 1977.
22. Morgan JN. A potpourri of new data gathered from interviews with husbands and wives. In: Duncan GJ, Morgan JN, eds. *Five thousand American families: patterns of American progress*. Vol 6. Ann Arbor: Institute for Social Research, University of Michigan, 1978.
23. Entwistle DR, Doering SG. *The first birth: A family turning point*. Baltimore: John Hopkins Press, 1981.
24. Cafferata GL, Kasper JD, Bernstein A. Family roles, structure, and stressors in relation to sex differences in obtaining psychotropic drugs. *J Health Soc Behav* 1982;24:132.
24. Kasper J. Physician utilization and family size. In: Andersen R et al., eds. *Equity in health services: empirical analysis in social policy*. Cambridge: Ballinger, 1975.
25. German P, Shapiro S, Vollmer MH. The effect of an extended family on health care for children. Paper presented at 1979 Annual Meeting, American Public Health Association.
28. Rossiter LF. Who initiates visits to a physician. Data Preview 3, National Health Care Expenditures Study, NCHSR, DHHS Pub. No. (PHS) 81-3291, September 1980.
29. Holt MM. SURREGR: standard errors of regression coefficients from sample survey data. Research Triangle Park, NC: Research Triangle Institute, 1977.
30. Cohen SB, Kalsbeek WD. Sampling variances in the household survey instruments and procedures 2. National Center for Health Services Research, PHS Pub. No. 81-3281, 1981.

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